

supplementing the previous discussion of the claims in relation to overall cashless system of the present invention, which was provided in the previous Response, by expressly comparing the claim language of the present application with example claim language from each related US application/patent.

Accordingly, the following remarks are respectfully submitted. Reconsideration of the claims is respectfully requested.

WHAT IS AN OPPOSITION

An Opposition is intended to be a relatively inexpensive way for interested persons to contest the validity of a granted European patent. A Notice of Opposition may be filed by any person within a term of nine months after grant of the patent. The opponent requests that the European patent is revoked (wholly or in part). Admissible grounds for opposition include lack of novelty, lack of inventive step, and insufficient disclosure.

Typically a Notice of Opposition is based on new or at least additional prior art. Although, it would be legally possible to base an Opposition on the same prior art that has already been cited during prosecution. The documents that have been cited in the Opposition proceedings are mentioned in the European Patent Register, which is accessible by the public.

Both the patentee and the opponent(s) are parties in the Opposition proceedings.

Both sides have the same procedural rights. The proceedings typically start with an exchange of written submissions and end in an oral hearing in which representatives of both sides are present. The decision is announced at the end of this hearing. Either side may Appeal, which transfers the case from the Opposition Division to an EPO Board of Appeal.

Typical duration of an Opposition would be two to three years for the first instance of the opposition proceedings and another two years for the appeal stage (if an appeal is filed). Of course, this is just an estimated average value. The actual duration of any given case may be very different, especially if more than one Opponent is involved.

OPPOSITION MAILED MAY 3, 2000 IN COUNTERPART PATENT APPLICATION IN THE EUROPEAN PATENT OFFICE ("Opposition")

Distinctions of the Claimed Present Invention over the Prior Art of Record

The business method of the present invention provides replacing cash with electronic money having characteristics of cash to accommodate identityless monetary transactions with sellers. The present invention provides the electronic money having such characteristics of cash

on an electronic medium, provides information of a financial institution and provides performing identityless monetary transactions using a point of sale terminal. More particularly, the present invention associates financial institution information with electronic money so that identity of a user, for example, user account information, does not need to be used in cashless transactions with sellers, thereby improving security and preserving user privacy. *See, for example*, page 45, lines 19-25; page 51, lines 14-19; and page 56, line 7 to page 57, line 10 of the present Application.

Typical cashless transactions (i.e., using a train fare card or tokens or a prepaid card) are limited to performing transaction with a single seller (entity) because these methods associate a seller's information with electronic money, thereby limiting transactions with the seller. In contrast to typical cashless transactions the claimed present invention provides a distinguishing business method to perform a cashless commercial transaction using electronic money that has the feature of not requiring an identity of an individual or the individual's account information for completing a transaction as in a conventional cash transaction.

Opposition to European Patent No. 0415916

The Opposition differs from the US patent prosecution process of the above identified application at least as follows:

First, the claims of European Patent No. 0415916 (Opposed Patent) corresponding to the counterpart European application of the present US application are different than the claims of the present US application. Therefore, the Opposition relates to different claims than the claims of the present US application and the Grounds of Opposition focus on different claims than the present US application.

Second, in the European Patent Office the standard applied for patentability of the Opposed Patent is whether the claims lack an inventive step over the combination of prior art cited by the Opponent. In contrast, 35 USC 103 provides whether the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Recitation of the Opposed Patent's independent claim 1, which is relied upon in the Grounds of Opposition, is as follows:

- a) a cashless medium having a memory means storing amount information and a personal identification code,

- b) key input means to be operated by an owner of the cashless medium,
- c) operation means for putting the cashless medium into an active state when the personal identification code matches a personal identification code inputted to the cashless medium through the key input means, and
- d) for subtracting a purchase amount from the amount information when making a transaction with a seller and for storing the result in the memory means;
- e) an automatic transaction terminal device having reading/writing means for writing amount information into the cashless medium; and
- f) a centre device for receiving payment information processed by the cashless medium.

Claim 1 further recites the feature of the centre device as follows:

- g) a deposit ledger file, connected to the automatic transaction terminal device and storing amount information on amount balances of multiple accounts,
- h) a non-settled fund or capital file for storing amount information; and
- i) a seller ledger file for storing amount information with respect to an amount balance of each seller; and in that
- j) the amount information stored in the memory means of the cashless medium is a balance which is decreased when making a transaction with a buyer, and increased or decreased by transferring funds from or to the deposit account of the owner.

Another copy of the English language Grounds of Opposition is attached for reference convenience.

In contrast to the Opposed Patent, the claims of the present application (as discussed in more detail below) provide a business method to replace cash with electronic money having characteristics of cash to accommodate identityless monetary transactions with sellers.

Prior Art R lied Upon In the Opposition**E1: EP 0 316 689 A2**

E1 discloses an IC card and a method of managing card-holder account information on the IC card. Col. 7, lines 1-5. Regarding transactions, E1 discloses a manual credit/cash card transaction using the card-holder's account information. For example, E1 discloses "the card holder presents the IC card to the store clerk. The store clerk receives the IC card, writes the displayed account type into the corresponding space of the transaction slip, and passes the transaction slip to the card holder." Col. 5, line 48 to col. 6, line 58.

Therefore, although an IC card is used in the system of E1, use of the IC card is limited to conventional credit card or cash card transactions. It is needless to say that a transaction (a cash deposit or a cash withdrawal) via a cash card means a process completed by certain amount of money being added to or deducted from the account file of a card holder in correspondence to the amount of cash being deposited or withdrawn. It is also needless to say that a transaction via a credit card means a process completed by a certain amount of money being deducted from the account file of a card holder corresponding to the amount of a purchase by the card holder and an amount corresponding to the purchase by the card holder being added to the account file of the vendor (seller).

In both cash card and credit card systems, a transaction between a buyer and a seller can be completed by having in the system an account file of the buyer and an account file of the seller, in other words, account files of parties involved with a transaction. Therefore, cash card and credit card systems, such as the one disclosed in E1, do not need any other account files to complete a transaction.

In contrast to E1, the present information is distinguishing as follows:

The present invention manages amount information (i.e., electronic money), which is transferred from balance of a bank account of a card holder, stored in memory of a card of the card holder so that the card holder can shop using the amount information as if the card holder paid in cash. Therefore, system configuration of the present invention manages amount information transferred from balance of a bank account to an electronic medium so that the amount information has characteristics of cash (i.e., being an alternative to cash) used to perform identityless monetary transactions with sellers.

Further in contrast to E1, to provide identityless cashless monetary transactions with sellers, the present invention more particularly associates financial institution information with

electronic money and uses a non-settled account of the financial institution to store “an amount of money responsive to an amount of money withdrawn from accounts of the financial institution, as electronic money, in form of information representing the amount of money; and settling funds between accounts of the seller and the non-settled account responsive to monetary transactions between the seller and holders of an electronic medium storing the electronic money, wherein the holder of the electronic money perform identityless cashless transactions with the sellers” (e.g., claim 21).

E1 does not disclose or suggest any features that may be used for managing an amount information to provide a business method according to the present invention. The Grounds of Opposition asserts that E1 discloses the present invention's claimed f) feature of “centre device for receiving payment information processed by the cashless medium,” which is part of the present invention's system to provide the claimed business method. Grounds of Opposition, page 4, lines 21-27. However, E1 only discloses updating the IC card in on-line mode, because E1 relates to managing card-holder account information on the IC card. Col. 8, line 56 to col. 9, line 8. E1 omits discussion of on-line cashless transactions. E1 only discloses a manual cashless transaction in col. 7, line 48.

E2: DE-A-34 06 615 and E1

The Grounds of Opposition combines E1 and E2, asserting that E2 discloses the details of the present invention's claimed f) feature of “centre device.” Grounds of Opposition, page 4, lines 29-33. Therefore, the Grounds of Opposition asserts that E2 discloses the present invention's claimed h) feature of “a non-settled fund” file. Grounds of Opposition, page 5, lines 19-25.

E2 discloses a file for outstanding transactions. The file for outstanding transactions defined in E2 is a file recording business transaction data for periods until, respectively, allowance periods elapse. Therefore, this outstanding transaction file function only contemplates granting a grace period between a transaction date and when associated payment is granted (i.e., before settlement of the transaction). More particularly, like E1, E2 discusses a conventional credit card transaction using an account file of the buyer and an account file of the seller and also using account information (identity) of the user to complete a transaction between a seller and a buyer. Page 4, lines 12-21; page 5, lines 3-19.

The claimed present invention is distinguishing as follows:

First, as discussed above, because E1 only contemplates a conventional credit/cash

card transaction, E1 does not need any other account files other than an account file of the buyer and an account file of the seller. Therefore, E1 does not suggest the present invention's "non-settled account of the financial institution" (claim 21), which argues against combining E1 and E2. More particularly, it would not be obvious at the time the invention was made to a person having ordinary skill in the art to which the present invention pertains to provide E2's file for outstanding transactions in E1's system because E1 does not require E2's file for outstanding transactions.

Second, E2's file for outstanding transaction does not manage amount information (i.e., electronic money) converted from a bank account of a holder of a cashless medium so that the holder can perform identityless cashless monetary transactions with sellers using the amount information. E2 is silent on the present invention's business method of identityless cashless monetary transactions because E2 discloses and contemplates that a bank card has recorded thereon account number and that transactions require the account number. Page 4, lines 22-23 and page 14, lines 13-24. Neither E1 or E2 discloses a system comparable to a system of the present invention, in which a cardholder shops by paying the amount information stored in memory of a card, the amount information transferred from a balance of the bank account of the card holder. More particularly, it would not be obvious at the time the invention was made to a person having ordinary skill in the art to which the present invention pertains to provide a system that manages amount information so that the amount information has characteristics of cash and the amount information can be used in identityless cashless monetary transactions with sellers as an alternative to cash.

In contrast to E1 and E2, the present invention provides a business method for "replacing cash with an electronic card storing information representing an amount of money equal to cash, the card having characteristics of cash to accommodate identityless monetary transactions with sellers" (claim 1). The present invention does not relate to a cash card (debit card), a credit card, or a prepaid card. Because E1 and E2 relate exclusively to cash/credit cards and do not suggest the claimed present invention, even if one combined E1 and E2, the claimed present invention is distinguishing.

LINE OF DEMARCATION BETWEEN THE PRESENT INVENTION AND PARENT US PATENTS/APPLICATIONS

The Claimed Present Invention

Independent claims 18, 20, 21, 22, 23, 25, 26 and 29 are pending in the present Application. These claims in relation to the overall cashless system according to the invention

are directed to a business method to replace cash with electronic money having characteristics of cash to accommodate identityless monetary transactions with sellers. Claim recitations of the present invention are as follows:

Independent Claim 18

The business method of the present invention as recited in independent claim 18 provides “replacing cash with an electronic card storing information representing an amount of money equal to cash, the card having characteristics of cash to accommodate identityless monetary transactions with sellers” (emphasis added).

Independent Claims 20 and 23

The business method of the present invention as recited in claims 20 and 23 provides performing a cashless commercial transaction using electronic money, including the feature of not requiring an identity of an individual or the individual's account information for completing a transaction as in a conventional cash transaction. As in a conventional cash transaction, an individual is not limited to performing transactions with a single seller.

The present invention as recited in claim 20 provides “storing, as electronic money, information representing an amount of money and financial institution information associated with the electronic money, wherein a holder of the medium performs identityless cashless transactions using the electronic money with any one of the sellers communicating with a financial institution” (emphasis added).

Further, the present invention as recited in claim 23 provides “storing on an electronic medium, as electronic money, information representing an amount of money” and “performing with any one of the sellers an identityless monetary transaction with the electronic money” (emphasis added).

Independent Claims 21 and 25

The business method of the present invention as recited in claims 21 and 25 provides performing a cashless commercial transaction using a non-settled fund by a financial institution from which a seller's account can be settled responsive to an identityless cashless monetary transaction. Use of the non-settled fund can accommodate identityless cashless transactions as in the case of a conventional transaction using cash.

The present invention as recited in claim 21 provides “storing in a non-settled account of a financial institution an amount of money responsive to an amount of money withdrawn from accounts of the financial institution, as electronic money, in form of information representing the

amount of money; and settling funds between accounts of the seller and the non-settled account responsive to monetary transactions between the seller and holders of an electronic medium storing the electronic money, wherein the holder of the electronic money perform identityless cashless transactions with the sellers (emphasis added).

Further, the present invention as recited in claim 25 provides "transferring to an electronic medium through a transfer terminal monetary information from a financial institution representing an amount of money available to a holder of the medium and requested by the holder; and transferring an amount of money responsive to the amount transferred to the medium to a non-settled account of the financial institution" (emphasis added).

Independent Claim 22

The business method of the present invention as recited in claim 22 provides performing a cashless commercial transaction using a point of sale terminal (POS) to store, as electronic money, information representing amounts of money responsive to identityless cashless monetary transactions, including financial institution information corresponding to the electronic money. The information in the POS is used to settle a seller's account at a financial institution.

The present invention as recited in claim 22 provides "storing in a point of sale terminal, as electronic money, information representing amounts of money responsive to identityless cashless monetary transactions with buyers and information of a financial institution associated with the electronic money, wherein a seller receives from the financial institution an amount of money responsive to the electronic money (emphasis added).

Independent Claims 26 and 29

The business method of the present invention as recited in claims 26 and 29 provides performing a cashless commercial transaction using electronic money, including the feature of not requiring an identity of an individual or the individual's account information for completing a transaction as in a conventional cash transaction, to store in a seller's point of sale terminal (POS) as electronic money information representing amounts of money responsive to the identityless cashless monetary transaction, including financial institution information corresponding to the electronic money, and to use a non-settled fund by a financial institution from which the seller's account is settled responsive to the identityless cashless monetary transaction.

The present invention as recited in claim 26 provides:

transferring to an electronic medium through a transfer terminal

monetary information from a financial institution representing an amount of money available to a holder of the medium and requested by the holder;

transferring an amount of money responsive to the amount transferred to the medium to a non-settled account of the financial institution;

performing a monetary transaction with the holder using the medium through a point of sale terminal of a seller and changing the monetary information on the medium responsive to the monetary transaction without identifying the holder; and

posting the change to the monetary information to a sales tallying file in the point of sale terminal and to the non-settled account of the financial institution responsive to the changing (emphasis added).

Further, the present invention as recited in claim 29 provides:

transferring to an electronic medium through a transfer terminal monetary information from a first financial institution representing an amount of money available to a holder of the medium and requested by the holder;

transferring an amount of money responsive to the amount transferred to the medium to a non-settled account of the first financial institution;

performing a monetary transaction with the holder through a point of sale terminal of a seller;

changing the monetary information on the medium responsive to the monetary transaction without identifying the holder;

posting the change to the monetary information to a sales tallying file in the point of sale terminal identifying financial institutions and storing monetary information corresponding to each financial institution; and

settling an account of the seller by transferring to the account of the seller from the non-settled account of the first financial institution an amount of money responsive to the monetary information stored in the sales tallying file corresponding to the first financial institution (emphasis added)

Claim Chart of Related Applications/Patents

The applications and patents related to the present application, including a brief summary of the claims and recitation of example claims, for each respective document are provided in a chart as follows:

<u>Patent No.</u>	<u>Example Claims</u>
5,644,118	The claims are directed to a terminal device and a center device of an electronic cashless system according to the invention.

1. An electronic cashless system comprising:
 - a terminal device; and
 - a center device connected to said terminal device;
 - said terminal device including:
 - first communicating means for communicating with said center device a first amount information to be subtracted from an account in said center device, said first communicating means annexing an account information with said first amount information; and
 - means for storing said first amount information into a memory; and
 - said center device including:
 - deposit ledger file means for identifying and storing account balances of multiple accounts, account by account;
 - non-settled fund file means for storing a non-settled fund which is an accumulated value of said first amount information, without specifying an account of said first amount information, at each time which said first amount information is subtracted from said account in said center device; and
 - processor means in response to said first amount information communicated with said terminal device, for subtracting said first amount information from said account specified by said annexed account information, and for renewing said non-settled fund in said non-settled fund file means by adding, without annexing said account information, said first amount information which is subtracted from said account by said processor means.

6,003,767

The claims are directed to a point of sale terminal device of an electronic cashless system according to the invention.

1. A point of sale terminal device connectable to a cash register carrying out a commercial transaction in an electronic cashless system by recording a commercial transaction amount onto an electronic cashless medium card and recording said amount into a tallying file within said terminal, said commercial transaction occurring without using an account number identifying an owner of the electronic cashless medium card, which comprises:
 - a direct clearing component providing direct clearing of the commercial transaction by communicating the commercial transaction amount to the electronic cashless medium card, the electronic cashless medium card not required to communicate an account number of the owner and having a total cash amount and a processor, said processor of the electronic cashless medium card subtracting said commercial transaction amount from said total cash amount; and
 - an indirect clearing component providing clearing of the transaction with a central bank by communicating the tallying file to said central bank without communicating the account number of the owner.

5,949,043

The claims are directed to an electronic cashless medium, a transaction terminal and a central clearing device of an electronic cashless system according to the present invention, and a method of performing a cashless electronic monetary transaction.

1. An electronic cashless system, comprising:
 - a electronic cashless medium storing an amount of money available to a holder of the medium;
 - a transaction terminal having an account associated therewith and capable of interacting with said medium to change the amount responsive to a monetary transaction with the holder without identifying an identity of the holder; and
 - a central clearing device coupled to said transaction terminal receiving the changes to the amount and posting the change to the amount to the account associated with the terminal.
3. A method of performing a cashless electronic monetary transaction, comprising:
 - storing, on an electronic cashless medium, an amount of money available to a holder of the medium;
 - changing the amount on the medium responsive to a monetary transaction with the holder without identifying the holder; and
 - posting the change to the amount to an account of a seller and to the account of the financial institution responsive to the changing.
4. A method of performing a cashless electronic monetary transaction, comprising:
 - storing, on an electronic cashless medium, an amount of money available to a holder of the medium;
 - determining whether the cashless medium is in working order by validating the medium;
 - changing the amount on the medium responsive to a monetary transaction with the holder when the cashless medium is in working order and without identifying the holder; and
 - posting the change to the amount to an account of a seller and to the account of the financial institution responsive to the changing.
5. A method of performing a cashless electronic monetary transaction, comprising:
 - storing, on an electronic cashless medium, an amount of money available to a holder of the medium;
 - validating the medium;
 - changing the amount on the medium, after validation, responsive to a monetary transaction with the holder without identifying the holder and posting the change to the amount responsive to the transaction; and

posting the change to the amount to an account of a seller and to the account of the financial institution responsive to the changing.

6. A method of performing a cashless electronic monetary transaction, comprising:

storing by a financial institution, on an electronic cashless medium, an amount of money available to a holder of the medium;
transferring the amount to an account of the financial institution from an account of the holder responsive to the storing;
validating of the medium and changing the amount on the medium responsive to a monetary transaction between the holder and a seller without identifying the holder when the medium is valid; and

posting the change to the amount to an account of a seller and to the account of the financial institution responsive to the changing.

6,003,762

The claims are directed to a cashless medium card of the cashless system of the invention.

1. A cashless medium card, comprising:

an external interface for receiving from an adding terminal device a transferred charging amount of money to be added to the cashless medium card and from a subtracting terminal a first purchase amount to be subtracted from the cashless medium card;
a memory storing a second amount corresponding to a current cash balance, the current balance initially being the transferred charging amount; and

a processor coupled to said interface and said memory, which operates within a cashless system without requiring an identity of a holder, subtracting the first amount from the second amount to determine a remaining amount representing available cash of the holder of said cashless medium card and for storing the remaining amount as a renewed second amount in said memory and said interface transferring the first amount from the cashless medium card to the subtracting terminal device.

6,257,487

The claims are directed to a cashless medium that calculates a total amount information of the first amount information and the second amount information stored in said first memory, and stores the total amount information as an updated second amount information to said first memory, without using an identity of said holder of said cashless medium and includes a key interface operable by the holder to input a password.

18. A cashless medium portable by a holder, comprising:

means for communicating with a terminal device a first amount information which is added to and is subtracted from the cashless medium;

a first memory storing a second amount information corresponding to cash information representing available cash of said holder of said cashless medium;

a key switch directly operable by the holder, for inputting a password; and

processor means for determining if the inputted password entitles use of the cashless medium, wherein said processor means calculates a total amount information of the first amount information and the second amount information stored in said first memory, and stores the total amount information as an updated second amount information to said first memory, without using an identity of said holder of said cashless medium.

Copending Applications (Docket No.)

09/852,842 (826.1034c2d2d3)

Example Claims

The claims are directed to a cashless medium that communicates with a terminal device a first amount information without an accounting information and includes a key interface operable by the holder to input a password.

18. A cashless medium portable by a holder, comprising:

a device communicating with a terminal device a first amount information without an accounting information;

a memory storing a second amount information corresponding to information representing available cash of said holder of said cashless medium;

a key interface operable by the holder to input a password; and

a processor, coupled to the key interface and the memory, determining if the input password entitles use of the cashless medium and calculating a total amount information of the first amount information and the second amount information stored in said memory, and storing the total amount information as an updated second amount information to said memory.

23. A method, comprising:
replacing cash with a cashless device, the

cashless device having characteristics of cash to accommodate monetary transactions with sellers without accounting information by having a processor, coupled to a key interface and a memory, to communicate with a transaction device a first amount information without accounting information, to store a second amount information corresponding to information representing available cash of a holder of the cashless device, to be operable by the holder to input a password, to determine if the input password entitles use of the cashless device, to calculate a total amount information of the first amount information and the second amount information stored in said memory, and to store the total amount information as an updated second amount information to said memory.

CONCLUSION

Earliest Foreign Priority Application Filing Date

The present application is a divisional of application number 09/365,032, filed August 2, 1999, now U.S. Patent No. 6,257,487, which is a divisional of 08/656,913, filed June 3, 1996 now U.S. Patent No. 6,003,767, which is a divisional of 08/279,856, filed on July 26, 1994, now U.S. Patent No. 6,003,762, which is a continuation of 07/959,458, filed October 9, 1992, now abandoned, which is a continuation of 07/578,234, filed September 6, 1990, now abandoned. The priority Japanese application has a filing date of September 6, 1989. Therefore, the present Application claims the benefit of the earliest foreign priority application filing date of September 6, 1989.

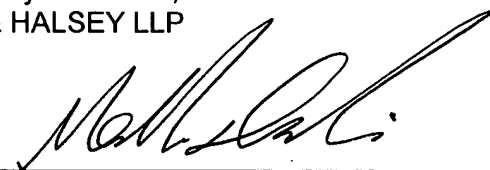
The remarks in this Response and the previous Response fully respond to the Office Action mailed January 22, 2001, the Examiner's requests in the communication mailed June 28, 2001 and the Examiner's requests in the telephone conference of July 10, 2001. The rejections of claims 18-31 are respectfully traversed in view of the remarks in this Response and the previous Response. Therefore, withdrawal of the rejections of claims 18-31 and allowance of claims 18-31 is respectfully requested.

Attached hereto recitation of all pending claims is provided for reference convenience. The attached page is titled "Recitation of Pending Claims."

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,
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